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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,896	01/15/2002	Eric Coates	13838/002001 / FGN/43011	9089

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EXAMINER
LU, KUEN S

ART UNIT	PAPER NUMBER
2177	

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/052,896	COATES ET AL.
	Examiner	Art Unit
	Kuen S Lu	2177

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>15 January 2002</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _____ is/are pending in the application.

    4a) Of the above claim(s) <u>1-40</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-40</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>5-05/20/2002</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form

the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 11, 22 and 36 are rejected are rejected under U.S.C. 102(b) as anticipated by

OraCon (Oracle8 Concepts, Release 8.0, Volumes 1 and 2, December 1997, Oracle

Corporation).

As per Claims 11, 22 and 36, OraCon teaches the following:

"information relating to an entry in a database having a plurality of data items related to

data subjects" at Pages 1-7 to 1-10 and Figs. 1-1 and 1-2 by showing a database

instance consisting of a plurality of users and applications (Page 1-8, specifically);

"the information including an indication of when the data related to a given data subject

was last verified as correct by that data subject" at Pages 27-2 and 27-3 where

database objects are audited and audit trails, stored into table, "comprising the step of:

updating the information automatically when the data subject to whom the data item

relates views the data item" at Pages 27-2 and 27-3 where the writing of audit trail table

is done automatically by the database management system.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained although the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-4, 12-15, 23-27 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choy (U.S. Patent 6,581,060) and in view of Lessard (U.S. Publication 2002/0188774).

As per Claims 1, 12 and 23, Choy teaches "data items ... including consensus related information" at Figs. 5-6, col. 3, lines 47-48 and col. 6, lines 20-31 where access authorizing information is combined with the data item by joining the access authorization table with information table; and "passing the data items to a user for viewing" at Fig. 6, elements 64-68 and col. 6, lines 44-53 where the information being reviewed is the joined access authorization and information tables.

Choy does not specifically teach "attaching a wrapper to at least some of the data items" although Choy teaches combination of records by joining tables.

However, Lessard teaches wrapping data items at Fig. 6, elements 604-606 and Page 6, [0059] where a table contains external data and wrapping data.

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention was made to combine Lessard's reference into Choy's by wrapping data to the end table records because both references are directed to combine data to form a new record, and the combined reference would have provided users of Choy's system with flexibility of utilizing and wrapping data together by selecting fields of specifying characteristics, such as consensus and authorization information as desired by Choy's for wrapping to the data items.

As per Claims 2 and 13, Choy teaches "wrapper includes an indication of whether the data items can be displayed to other users" at col. 2, lines 33-37 and col. 7, lines 46-48 where multiple rows of data can be bound to respective multiple access control rules, including the read authorization of data.

As per Claims 3, 14 and 26, Choy teaches "the indication comprises a consent flag" at Fig. 2, element 40 and col. 5, lines 45-55 where ACL attribute can be evaluated to allow or disallow for serving as a consensus key.

As per Claims 4, 15 and 27, Choy teaches "the consent flag has a first state in which the data item can be viewed by other users, a second state in which the data item cannot be viewed by other users" at Fig. 2, element 40 and col. 5, lines 45-55 where ACL attribute can be evaluated to allow or disallow for serving as a consensus key, and "a default state in which the data item can be viewed by other users only if it is not defined as sensitive data" at col. 5, lines 28-30, 36-38 and 51-55 by suggesting the functionality of ACL attribute (consisting of privilege, user and condition attributes) for access protection can be extended, including a default third state.

As per Claim 24, Choy teaches "database is located at a database server" at Fig. 1 where the server computer (element 28) having a relational database (element 24).

Choy does not specifically teach "store is located at a consensus server".

However, Lessard teaches a consensus server having a store for storing wrappers at Fig. 1 where sever computer (element 102) serving as the consensus server having a store (element 126) to be utilized as the wrapper store.

It would have been obvious to one having ordinary skill in the art at the time of the

applicant's invention was made to combine Lessard's reference into Choy's by separating database server from the consensus server because the two references are directed to data access control and validity and the combined reference would have separated database management server from application server. The separation of the servers would have provided flexibility of database and application maintenance. Further more, the separation would have provided scalability for system configuration.

As per Claim 25, Choy teaches "a rules table for applying flag rules and consensus rules to data items and system users respectively" at Fig. 5, where access authorization table is the rules table whose condition, operation and ACL components are combined with user and user group components to provide flag rules and consensus rules to users and system users respectively.

As per Claim 33, Lessard further teaches "a web server for providing access to users across the Internet" at Page 3, [0030] by showing client includes internet browser program.

3. Claims 5-7, 9-10, 16-18, 20-21, 28-29, 31-32 and 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choy (U.S. Patent 6,581,060) in view of Lessard (U.S. Publication 2002/0188774), as applied to Claims 1-4, 12-15, 23-27 and 33, and further in view of OraCon (Oracle8 Concepts, Release 8.0, Volumes 1 and 2, December 1997, Oracle Corporation).

As per Claims 5, 16 and 28, the Lessard-Choy combined reference teaches wrapping data as described in Item 2.

The Lessard-Choy combined reference does not specifically teach "the wrapper includes an indication of when the data item was last correct, the method further comprising the steps of: automatically updating the indication of when the data was last correct when the user to whom the data item relates views the data item", although the combined reference teaches wrapping data items with access control information and updating access control information (Choy, col. 6, lines 1-10).

However, OraCon teaches using background processes to automatically trace database error and writing into trace log at Pages 7-14 and 7-15, and audit process to automatically audit database objects changes at Pages 27-2 to 27-12. Based on the traced error log, data was correct before when the error was traced.

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention was made to combine OraCon's reference with Lessard and Choy's by using background and audit processes to trace data errors and audit data changes automatically because all three references are directed to data access control and data validity. The combined reference provides teaching of data structure for data wrapping and access control where the data structure would have been utilized to record data errors and changes information. The combination of the three references would have been able to provide a sole integrated source of information for data access control and data integrity.

As per Claims 6, 17 and 29, OraCon further teaches "includes an indication of when and by whom the data item was changed" at Page 27-3 by using data audit trail to indicate when and by whom the data item was changed.

As per Claims 7, 18 and 32, OraCon further teaches "comprising the steps of updating an audit log when the data item or any data in the wrapper relating to the data item is changed" at Page 27-3 where audit trail is stored into a database table.

As per Claims 9, 20 and 31, OraCon further teaches "a flag is set for each user indicating whether they have accepted a current rule set governing access to the database, and access to the database is denied if the rule set is not accepted" at Pages 25-4 and 25-5 by using authentication as a rule set for governing user access to the database and using the times of user login failure to lock the user's account.

As per Claims 10, 21 and 35, OraCon further teaches "automatically notifying an administrator if a user makes a change to a data item related to the user" at Page 25-4 by storing auditing information of database objects into a table serving as the administration's notice on user's access to objects and object changes.

As per Claim 34, OraCon further teaches "protected database according to claim 23, wherein the users comprise a data controller and a plurality of data subjects" at Page 26-2 and 26-3 where users granted with database system privilege is the data controller whose schema consists of data subjects.

4. Claims 8, 19 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choy (U.S. Patent 6,581,060) in view of Lessard (U.S. Publication 2002/0188774), as applied to Claims 1-4, 12-15, 23-27 and 33, and further in view of Baumeister et al. (U.S. Publication 2002/0042910, hereafter "Baumeister").

As per Claims 8, 19 and 30, the Lessard-Choy combined reference teaches wrapping data as described in Item 2.

The Lessard-Choy combined reference does not specifically teach "calculating a value of the checksum when a data item is requested from the database".

However, Baumeister teaches at Page 2, [0018] by providing checksum error information when data is requested.

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention was made to combine Baumeister's reference with Lessard-Choy's by including checksum error when the wrapped data is requested because all three references are directed to data access control and data validity and the combined reference would have further guaranteed data integrity.

Baumeister further teaches "comparing the calculated value with the checksum in the wrapper" at Page 2, [0018]; and "forwarding the data item to the user only if the calculated checksum agrees with the checksum in the wrapper" at Page 2, [0019].

5. Claims 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choy (U.S. Patent 6,581,060) in view of Lessard (U.S. Publication 2002/0188774), and further in view of OraCon (Oracle8 Concepts, Release 8.0, Volumes 1 and 2, December 1997, Oracle Corporation).

As per Claims 37 and 38, Choy teaches "data items ... including consensus related information" at Figs. 5-6, col. 3, lines 47-48 and col. 6, lines 20-31 where access authorizing information is combined with the data item by joining the access authorization table with information table; and "passing the data items to a user for viewing" at Fig. 6, elements 64-68 and col. 6, lines 44-53 where the information being reviewed is the joined access authorization and information tables.

Choy does not specifically teach "attaching a wrapper to at least some of the data items" although Choy teaches combination of records by joining the tables.

However, Lessard teaches wrapping data items at Fig. 6, elements 604-606 and Page 6, [0059] where a table contains external data and wrapping data.

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention was made to combine Lessard's reference into Choy's by wrapping data to the end table records because both references are directed to combine data to form a new record, and the combined reference would have provided users of Choy's system with flexibility of utilizing and wrapping data together by selecting fields of specifying characteristics, such as consensus and authorization information as desired by Choy's for wrapping to the data items.

The combined Lessard-Choy reference does not specifically teach "the wrapper includes an indication of when the data item was last correct, the method further comprising the steps of: automatically updating the indication of when the data was last correct when the user to whom the data item relates views the data item", although the combined reference teaches wrapping data items with access control information and updating access control information (Choy, col. 6, lines 1-10).

However, OraCon teaches using background processes to automatically trace database error and writing into trace log at Pages 7-14 and 7-15, and audit process to automatically audit database objects changes at Pages 27-2 to 27-12. Based on the traced error log, data was correct before when the error was traced.

It would have been obvious to one having ordinary skill in the art at the time of the

applicant's invention was made to combine OraCon's reference with Lessard-Choy's by

using background and audit processes to trace data errors and audit data changes

automatically because all three references are directed to data access control and data

validity. The combined reference provides teaching of data structure for data wrapping

and access control where the data structure would have been utilized to record data

errors and changes information. The combination of the three references would have

been able to provide a sole integrated source of information for data access control and

data integrity.

6. Claims 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choy

(U.S. Patent 6,581,060) in view of Lessard (U.S. Publication 2002/0188774), and further

in view of Baumeister et al. (U.S. Publication 2002/0042910, hereafter "Baumeister").

As per Claims 39 and 40, Choy teaches "a database server having a database for

storing data items relating to data subjects" at Fig. 1 where the server computer

(element 28) having a relational database (element 24).

Choy does not specifically teach "attaching a wrapper to at least some of the data

items" although Choy teaches combination of records by joining the tables.

However, Lessard teaches wrapping data items at Fig. 6, elements 604-606 and

Page 6, [0059] where a table contains external data and wrapping data.

It would have been obvious to one having ordinary skill in the art at the time of the

applicant's invention was made to combine Lessard's reference into Choy's by wrapping

data to the end table records because both references are directed to combine data to

form a new record, and the combined reference would have provided users of Choy's

system with flexibility of utilizing and wrapping data together by selecting fields of

specifying characteristics, such as consensus and authorization information as desired

by Choy's for wrapping to the data items.

Lessard further teaches "a consensus server having a store for storing wrappers" at

Fig. 1 where sever computer (element 102) serving as the consensus server having a

store (element 126) to be utilized as the wrapper store.

The Lessard-Choy combined reference does not specifically teach "a checksum field

which stores a checksum based on the content of said wrapper fields".

However, Baumeister teaches at Page 2, [0018] by providing checksum error

information when data is requested.

It would have been obvious to one having ordinary skill in the art at the time of the

applicant's invention was made to combine Baumeister's reference with Lessard-Choy's

by including checksum error when the wrapped data is requested because all three

references are directed to data access control and data validity and the combined

reference would have further guaranteed data integrity.

Baumeister further teaches "consensus server further comprises a checksum

generator for generating a fresh checksum when a data item is requested by said

application server, for checking said fresh checksum with said checksum in said

wrapper checksum field and for passing said data item to said application server only if

said fresh checksum corresponds to said checksum in said wrapper" at Page 2, [0018]

and Page 2, [0019].

It would have been obvious to one having ordinary skill in the art at the time of the

applicant's invention was made to combine Baumeister's reference with Lessard and Choy's by including checksum error when the wrapped data is requested because all three references are directed to data access control and data validity and the combined reference would have further guaranteed data integrity.

Conclusions

7. The prior art made of record

    A. U.S. Patent   6,581,060

    B. U.S. Publication 2002/0188774

    C. U.S. Publication 2002/0042910

    U. Oracle8 Concepts, Release 8.0, Volumes 1 and 2, December 1997, Oracle Corporation

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

    D. U.S. Patent   6,510,513

    E. U.S. Publication 2001/0019614

    F. U.S. Patent   6,578,037

    G. U.S. Patent   6,654,745

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuen S Lu whose telephone number is 703-305-4894. The examiner can normally be reached on 8 AM to 5 PM, Monday through Friday.
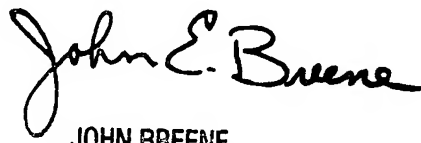
If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Breene can be reached on 703-305-9790. The fax phone number for

the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-305-3900.

KL

Patent Examiner

April 30, 2004

JOHN BREENE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100